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# California's Health

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## RESEARCH ACTIVITIES CURRENT IN THE STATE HEALTH DEPARTMENT

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Director, California State Department of Public Health

A review of our State Health Department's major research activities has been carried out recently for the purpose of determining the extent to which the major public health problems in California are being covered, and for an evaluation of progress in ongoing programs. Consideration has also been made as to whether research funds are being used to the best advantage.

Research is currently underway concerning the virus diseases, alcoholism, maternal and child health, chronic disease, and blindness prevention.

The results of some of the research will enable the department to conduct public health programs in a more efficient manner with improved services to the people. Some of the findings will save or extend life, while others will fill in some of the voids in medical knowledge.

### Rabies Diagnosis Method

It always has taken weeks in the laboratory to determine whether an animal which has bitten a person was rabid. The victim and his family usually spend this time in an atmosphere of anxiety and worry, realizing that rabies, once contracted, is always fatal.

The department's Viral and Rickettsial Disease Laboratory is currently working on a simplified test for the diagnosis of rabies. When perfected, the test will remove all doubt in a matter of days and will indicate whether the rabies vaccine treatment must be started.

At present, prompt diagnosis depends upon finding specific virus inclusion bodies (Negri bodies) in infected tissues of the suspected animal. Sometimes the Negri bodies are absent or not typical, making quick microscopic diagnosis difficult or impossible. When this occurs, laboratory animals must be inoculated with the possibly diseased tissues, a process which sometimes takes as long as four weeks for a diagnosis.

To circumvent this situation, studies are underway to develop a simplified method of diagnosis. The laboratory is using a specific antibody to which a fluorescent dye is coupled chemically. If rabies virus is present in the tissue the added antibody unites with the virus. Since the antibody is tagged with the fluorescent dye, this highly specific fluorescence can be seen through the microscope when ultraviolet light shines on the tissue.

### Adenovirus Research

The viral laboratory has been conducting research on respiratory diseases for 10 years, initially on influenza and the development of a flu vaccine. More recently, the laboratory has been studying the adenoviruses. Out of these special studies the laboratory recently recovered what appears to be a new virus, which is now being studied for relationship to human disease.

This laboratory is one of several in the Nation which have demonstrated the prophylactic value of adenovirus vaccines against respiratory disease.

For several years the laboratory has been maintaining surveillance on poliomyelitis. These studies have disclosed that what once was diagnosed as nonparalytic polio was not due to the polio viruses but to various other viruses such as mumps, Coxsackie, and the ECHO viruses, and some still unknown viruses which require further research.

### Human Encephalitis

A work of particular importance is study of the encephalitides, especially western equine and St. Louis. The department is concerned with the occurrence of the disease in man and with the level of infection in the mosquito population.

In co-operation with the Rockefeller Foundation, the laboratory is also conducting a study on arthropod-borne viruses.

Continuously underway are studies to simplify present diagnostic methods and to devise new ones. In this field the laboratory has devised a complement fixation test for the diagnosis of polio, and colorimetric tests for the identification of Coxsackie viruses and the measurement of antibody levels to these viruses, and for identification of adenovirus types. Also devised is a simpler method for isolating and identifying the western equine and Turlock encephalitis viruses from mosquitos. This simplifies large-scale surveillance of the mosquito population.

### Research in Alcoholism

The Division of Alcoholic Rehabilitation is directly supporting 15 re-

search projects, including four major epidemiologic and medical studies being conducted by the Study and Investigation Section.

Some 1,400 alcoholic patients treated in several types of treatment facilities have been followed up with personal interviews and record checks in attempts to devise methods for evaluating the social and physical adjustment of the alcoholic following therapy, and to record the posttreatment behavior of these individuals and circumstances surrounding deaths among them.

These studies are currently in their third followup year and a final interview attempt is scheduled to be made in 1960. This will give a five-year surveillance record, the content of which broadly embraces social, economic, behavioral, and health indices.

Of interest and importance are the recorded diseases from which alcoholics die—not only those diseases given as the immediate underlying cause of death, but also the coterminal morbid conditions present at the time of death.

#### **Alcoholism and Violent Death**

Several studies have been completed, and are currently under report, demonstrating the frequency with which alcoholics die from a variety of conditions or illnesses. These measure, in a labeled population of alcoholics (those being followed in the evaluation studies), the rate at which alcoholics die. For example, in one of the followup groups it has been possible to show, by death registry checks, that these alcoholics have mortality rates (all causes) two to three times those to be expected among populations of comparable race, age, and sex; and further, that among those deaths verified in the registry, more than one-third were attributed to violence, i.e., accidents or suicide. The manner of death, when viewed and analyzed in this fashion, frequently suggests some antecedent way of life amenable to preventive action.

#### **Liver Damage Test**

Of great interest to the department is a pilot study on zinc excretion. The relationship between alcoholism and cirrhosis of the liver is one that requires elucidation. Recent researches have indicated that the excretion of

certain trace metals from the body might be indicative of early liver derangement. One such metal, zinc, is indispensable for the metabolism of alcohol in the human system.

Currently, the division is piloting a study on zinc excretion in normal and liver-deranged persons to determine whether this finding is valid. If so, the answers to the epidemiologic survey questions concerning alcohol consumption might be validated by clinical test to permit clarification of the extent to which alcohol and cirrhosis are interrelated.

In order to ascertain how communities view beverage use and attendant problems, the Studies and Investigation Section of the department's Division of Alcoholic Rehabilitation has interviewed community leaders throughout California to determine what to them was the earliest sign that an individual had a drinking problem.

#### **Stress and Alcoholism**

The interviews in this first stage of the study were analyzed and the qualifying conditions for labeling an individual as a potential problem drinker were assembled into a "screen," which presumes to divide "normal" (criterion—gainfully employed) populations into groups at higher or lower risk for the development of the process which is called alcoholism. The underlying, unifying concept is that of pervasive stress—those laboring under a greater load of stress situations are more likely to make intemperate use of some anxiety-reducing resources such as alcohol.

Currently, this study is at the stage of selecting large population groups of working adults to whom the screening questionnaire will be given. Once screened, matching (age, sex, race, occupation) high and low risk groups will be assembled as a panel to be followed with personal interviews for five years. Both group and individual motion in the direction of intemperate drinking, or its equivalent, as a coping mechanism will be described and analyzed against the stress concept.

#### **Psychiatric Approach to Alcoholism**

Most extensive of the contract research projects on alcoholism being supported by the department is the work of the Alcoholism Research

Clinic of the University of California School of Medicine in Los Angeles. The clinic is under the direction of the Department of Psychiatry. To test present treatment methods and develop new approaches to the treatment of alcoholics, the clinic uses an average caseload of 25 to 75 alcoholic patients, depending upon the type of study.

The studies include: psychological testing, autonomic nervous system reactions, evaluation of drugs and placebos in treatment, evaluation of individual and group psychotherapy, evaluation of the structure and effectiveness of Alcoholics Anonymous as a form of therapy, and addiction studies with animals.

#### **Family Relations Studies**

On the Davis campus of the University of California the Department of Sociology, Anthropology, and Geography is in the second year of a study designed to analyze changes and disturbances that occur in families because of alcoholism and the different relationships which develop between family members with the onset of alcoholism.

#### **Physiological Aspects of Alcoholism**

In the Department of Physiology on the Berkeley campus of the university studies are being conducted to determine what effect excessive use of alcohol has on normal physiologic processes and/or whether resultant disturbances are the cause or result of alcoholism; specifically, to determine the effects of stress on chronic alcoholics.

The alcoholic metabolism studies being conducted for the department by the staff at Langley Porter Neuropsychiatric Institute in San Francisco were designed to investigate the capability of brain tissue to metabolize alcohol, the role of alcohol in fat formation, and the metabolic effects of alcohol and tranquilizers in combination.

In addition to projects within the Division of Alcoholic Rehabilitation and those supported by separate contracts, a number of pilot alcoholic rehabilitation clinics—treatment facilities operated autonomously by local government but supported with state funds—are conducting treatment research projects on a similar scale.

### Maternal, Child Health Research

The Bureau of Maternal and Child Health this last year has been engaged in research activities in four areas: reproductive loss, child accidents, problem behavior, and evaluation of maternal and child health services.

A special study is currently underway in Children's Hospital, Los Angeles, on the effectiveness of oxygen limiters to control the concentration of oxygen flowing into hospital premature baby incubators, and to accelerate the application of new knowledge in regard to oxygen and retrolental fibroplasia, a form of blindness in new babies caused by high concentrations of oxygen.

It is estimated that the discovery that irreversible blindness can result from excessive administration of oxygen to premature infants during the early weeks of life has saved the sight of nearly 125 babies yearly in California.

### Accidental Child Poisonings

The bureau has been conducting a controlled study of the causes of accidental poisonings in young children. One thousand household interviews already have been completed, 500 in homes where children have been poisoned and 500 in homes where children and their families have not been poisoned. The study is being carried on by this department in co-operation with the Alameda and Contra Costa Health Departments and the Berkeley City Health Department.

In its early stages is a physical health appraisal study to determine the value of current maternal and child health practices in order to obtain maximum professional and economic returns in child health clinics.

### Prenatal Care

With the same objective in view the bureau also is studying prenatal care in the Los Angeles County Hospital to determine the reasons why over 25 percent of the persons using this service do not obtain adequate care. The social worker assigned to the study has interviewed 400 mothers so far.

A grant of \$160,000 from the National Institutes of Health for research into the basic causes of child accidents was awarded the department this month. Child accidents in California now kill 1,100 children under the age of 15 each year, hospitalize

25,000, and send another 600,000 for medical care.

The department currently is pioneering in the identification of the causes of specific types of childhood accidents, such as poisoning, burns, and auto-pedestrian trauma. The grant gives further support to a nationally recognized epidemiology laboratory for study of childhood injuries which was established by this department, the Alameda-Contra Costa County Medical Association, the hospitals and health departments of the two counties and the University of California School of Public Health. The laboratory now analyzes reports of about 30,000 injuries a year which occur among children of the two counties.

### Chronic Disease Research

Recent findings from studies carried out in the Chronic Disease Epidemiology Center show that excessive cigarette smoking is strongly associated not only with lung cancer but also with coronary heart disease. The latter is the single leading cause of death among men and accounts for approximately one-third of all deaths among men.

A summary of two separate studies conducted by the epidemiology center, as well as several investigations carried out in other states and countries, has just been published by members of the staff. It reveals with striking consistency that the amount of mortality from coronary heart disease associated with cigarette smoking may exceed that of lung cancer.

Research into cigarette smoking as a causative factor in these two modern "epidemics"—lung cancer and coronary heart disease—is only one of the many activities of the epidemiology center. Members of the staff, financed during the past few years by a grant from the Rockefeller Foundation, have also investigated occupational factors in heart disease and lung cancer. Further studies have shown an excess of the latter disease among Mexican-born women living in California, and a threefold excess of stomach cancer among Japanese living in California.

### Health Effects of Air Pollution

When air pollution was recognized as an emergent health problem, the department turned to the core staff of the center as the group to undertake

the first intensive investigation. To date considerable progress has been made in delineating the health problem, including evidence that air pollution episodes of the type and degree experienced in California until now do not cause immediate increase in mortality or general illness rates.

Studies do suggest, however, the possibility of interference with respiratory function and long-term disease resulting from exposure to air pollution. Research by the group has also measured the extent to which people are "bothered" by air pollution, a highly important element in evaluating control measures.

### California Health Survey

One key method used by the center has been the household survey, principally the California Health Survey, the first year of which resulted in publication of "Health in California." This was the first statewide picture of health conditions ever to be achieved. Numerous special studies have also been carried out with the health survey technique.

Thus the epidemiology center has not only continued the public health tradition of applying the epidemiologic method to the major diseases, such as heart disease and cancer, it has also served as a core group to which the State could look for the organization and direction of studies dealing with new problems such as air pollution.

### California Tumor Registry

The California Tumor Registry received its 200,000th report of neoplasm during the first week in January, maintaining its standing as the largest single registry in the world.

The registry is now engaged in a series of studies based on information in its files. One such study is a collaborative effort of the registry, the Cancer Commission of the California Medical Association and the California Society of Pathologists, and will test the validity of published survival rates for cancer of the breast. Three outstanding pathologists in the State are independently rereading the slides on which the original diagnoses of breast cancer were based.

Decided improvement in quality of diagnosis has been recorded in the 15-year experience of cancer cases in the 38 hospitals currently participating



in the registry. The proportion of cases confirmed by histopathology has risen from 73 percent in 1942-46, to 92 percent in 1956. Followup information is being obtained on 91 percent of all cancer cases.

The survival rate of persons with cancer of the lung continues to be very low—less than 5 percent survive five years after diagnosis. This makes it imperative that some means of prevention be found to offset the sharp continuous rise in the incidence of this disease.

#### Blindness Prevention Research

On the basis of studies made by this department, it is estimated that there are 27,000 blind individuals in California of whom about 2,000 are children. Those with partial sight or impaired vision which is not correctible number around 81,000.

Of the blind adults in California some 13,700 are receiving welfare aid at an annual cost to the taxpayer of almost 16 million dollars. The welfare rolls show a net accretion of 40 blind individuals per month. Blindness weighs most heavily on the two ends of the age scale—young children and our senior citizens—a fact which is of special significance because of the importance of preventable forms of blindness in these two groups.

In California during the period of this special project, and through the efforts of medical eye specialists, the California Chapter of the National Society for the Prevention of Blindness, and the state and local health departments, some 20,000 persons have been screened for one preventable form of blindness—glaucoma. Two out of every 100 of these individuals over 40 have been found to have unknown glaucoma. Residents in Santa Rosa, Sacramento, San Francisco, Stockton, Oakland, Fresno, Bakersfield, Santa Barbara, Van Nuys, Glendale, Alhambra, Los Angeles, Pasadena, Pomona, Whittier, Santa Ana, Riverside and San Diego are now aware of the importance which the physician places on early detection of this blinding condition.

In other communities in California through work with the voluntary agency, service groups, the P.T.A., and the eye specialists, many three-, four- and five-year-old children have been screened to detect the early signs of conditions which could lead

to impaired vision, but which early identification and professional attention can prevent.

Vigorous leadership and support for the development of local communitywide programs in blindness prevention and sight conservation is clearly the next step for California. Such a program would include investigation to find causes of blindness and to test methods of prevention; it would include education, both public and of professional groups which can participate in sight conservation; programs for the early detection of conditions leading to sight loss with referral for professional care, and vigorous followup to see that the opportunities for corrective and preventive work are accepted.

In drafting a plan for California which would make possible bold, organized efforts to reduce disability with its economic and human losses, the department had the advantage of an advisory committee which represents organized medical groups, voluntary agencies, industry, local health officials, vision specialists, and service associations.

#### Non-State Research Funds

Because it has the facilities and qualified professional staff in a variety of disciplines, the department has consistently been awarded research grants from many health agencies to carry on studies whose findings will be of public health benefit to the Nation.

Last year the department was awarded grants totaling \$693,847 from the American Cancer Society, Kellogg Foundation, Rockefeller Foundation, and from federal sources, including the U. S. Children's Bureau, the U. S. Army, the National Institutes of Health and the U. S. Public Health Service.

Pending is a \$183,400, three-project research proposal from the National Institutes of Health for a study in alcoholism, a human population laboratory in chronic disease, and a study to learn why mosquitoes become resistant to insecticides.

Top three of the hit parade of most frequently occurring automobile crashes are those involving following too closely, blind intersections, and left turns.—*Lecture, Traffic Violators' School, Berkeley, California.*

## PUBLIC HEALTH POSITIONS

### Alameda County

**Assistant Health Officer:** Salary range, \$998 to \$1,100. To direct a major program or a geographical division of the health department. Requires three years of public health medical experience, or one year of graduate study in public health plus two years experience.

**Chief Public Health Analyst:** Salary range, \$505 to \$613. Directs the records and statistics unit of the county health department. Requires college graduation and three years experience in statistical analysis of public health data, or a master's degree in biostatistics and one year of experience. Examination by written test and interview.

**Public Health Analyst II:** Salary range, \$436 to \$530. Preparation and analysis of tabulations, and presentation of public health data. Requires college degree plus two years of technical research or statistical experience (one of which must have been in the public health field), or a master's degree in biostatistics. Examination to include a written test (this can be administered in the locale of the candidate) and a personal interview.

**Public Health Nurse:** Salary range, \$436 to \$505. Generalized public health nursing program. Many positions include school nursing. Requires California public health nursing certificate or eligibility therefor. Examination by interview only.

**Microbiologist:** Salary range, \$395 to \$481. Requires California certificate, plus college degree in medical or public health bacteriology or microbiology, plus six months public health laboratory experience.

**Sanitarian:** Salary range, \$436 to \$505. General sanitation program covering all sanitation services in specific geographical district. Requires California certification, plus college degree in sanitary science or related field. (Eligibility for next state examination acceptable.)

For further information regarding any of these positions write to Alameda County Civil Service Commission, 12th and Jackson Streets, Oakland 7, California, or phone HI gate 4-0844, Extension 255.

### Orange County

**Administrative Assistant to the County Health Officer:** Salary range, \$516 to \$641. Responsibilities to include personnel, purchasing, budget preparation, and administration. Requires college degree and three years of experience in administration, research, investigation, and reporting on organizational, fiscal, or personnel matters. One year of graduate study in public administration, business administration, or hospital administration may be substituted for one year of the required experience. Apply to Orange County Personnel Department, 801-C North Broadway, Santa Ana, California.

### Santa Barbara County

**Sanitarian:** Salary range, \$373 to \$455. Starting salary depends on qualifications and experience. Requires California certification. Preference given to holder of public health degree. Immediate vacancy. Newly established position with car furnished. Contact A. J. Engle, Director of Sanitation, P. O. Box 119, Santa Barbara, California.

## STATE HEALTH DEPARTMENT ADVISORY COMMITTEES AND CONSULTANTS FOR 1959

The State Board of Health appointed advisory committees and consultants to serve during 1959 at their December 12th meeting in Los Angeles.

As in the past the advisory committees and consultants will continue their valuable guidance service to the ongoing programs of public health in California.

The 1959 advisory committees are as follows:

### ADVISORY COMMITTEES

#### Air Sanitation

J. B. Askew, M.D., Air Pollution Control Officer and Health Officer, San Diego;  
Julius H. Comroe, Jr., M.D., Director of Cardiovascular Research Institute, University of California Medical Center, San Francisco;  
S. Smith Griswold, Control Officer, Los Angeles County Air Pollution Control District, Los Angeles;  
Dr. A. J. Haagen-Smit, Professor of Biochemistry, Kerkhoff Laboratory of Biology, California Institute of Technology, Pasadena;  
Dr. Dale H. Hutchison, Manager of Division Relations, Physical Sciences Division, Stanford Research Institute, Menlo Park;  
Kenneth E. Kingman, Vice President, Union Oil Company of California, Los Angeles;  
Benjamin Linsky, Control Officer, Bay Area Air Pollution Control District, San Francisco;  
Dr. John T. Middleton, Chairman, Air Pollution Research, Agricultural Experiment Station, University of California, Riverside;  
Corwin R. Mocine, City Planning Engineer, Oakland;  
Stafford L. Warren, M.D., Dean, School of Medicine, University of California, Los Angeles.

#### Alcoholic Rehabilitation

Alfred Auerback, M.D., San Francisco;  
Wilbert L. Hindman, Ph.D., Professor of Business Administration, University of Southern California, Los Angeles;  
Edwin I. Power, Sr., The Nut Tree Restaurant, Vacaville;  
E. Robert Stallings, County Manager, San Mateo County, San Mateo;  
The Honorable J. Howard Ziemann, Judge of the Los Angeles County Superior Court, Los Angeles.

#### Prevention of Blindness Project

George H. Blasdel, D.O., Los Angeles;  
B. J. Callaghan, Superintendent, Liberty Union High School District, Brentwood;  
Glenn R. Dorius, M.D., Oakland;  
Mrs. Burnetta Downing (alternate for Mrs. Gradle), Executive Director, California Chapter National Society for Prevention of Blindness, Los Angeles;  
Mrs. Audrey H. Gradle, National Society for Prevention of Blindness, Westwood;

Michael J. Hogan, M.D., University of California, School of Medicine, San Francisco;  
David D. Holaday, M.D., Medical Department, American Can Company, San Francisco;  
L. Hugo Lucie, M.D., San Diego;  
Edward Lee Russell, M.D., Health Officer, Orange County, Santa Ana;  
Kenneth B. Stoddard, Ph.D., Dean, School of Optometry, University of California, Berkeley.

#### Blood and Blood Derivatives

George D. Maner, M.D., Los Angeles;  
Curtis E. Smith, M.D., San Francisco;  
Owen F. Thomas, M.D., Santa Rosa;  
John R. Upton, M.D., San Francisco.

#### Cannery Inspection Board

George A. Gooding, California Packing Corporation, San Francisco;  
Allan D. Lynn, Bonnie Dog Food Company, Sacramento;  
S. J. Tupper, Olive Products Company, Oroville;  
Gilbert C. Van Camp, Van Camp Sea Food Company, Inc., Terminal Island.

#### And Statutory Members

K. F. Meyer, M.D., San Francisco;  
Malcolm H. Merrill, M.D., State Director of Public Health, Berkeley.

#### Clinical Laboratory Technology

George Hal De May, M.D., Pathologist, Brookside Hospital, San Pablo;  
Miss Josephine Downey, Riverside;  
H. Russell Fisher, M.D., Los Angeles;  
Joe A. Lazaroni, Jr., Ph.D., San Bernardino;  
William N. Reich, Walnut Creek;  
Mrs. Mavis Smith, Palo Alto.

#### Crippled Children Services

Carolyn B. Albrecht, M.D., Health Officer, Marin County, San Rafael;  
Maxwell M. Andler, M.D., Acting Medical Director, Physically Handicapped Children's Program, Los Angeles;  
Lawrence Arnstein, Executive Director, San Francisco Social Hygiene and Health Association, San Francisco;  
Warren L. Bostick, M.D., Assistant Professor of Pathology, University of California Hospital, San Francisco;  
Merle Cosand, M.D., Health Officer, San Bernardino County, San Bernardino;  
Burt L. Davis, M.D., Academy of General Practice, Palo Alto;  
Leon Oliver Desimone, M.D., Academy of General Practice, Los Angeles;  
Sanford R. Dietrich, M.D., Santa Barbara;  
Charles L. Dimmler, M.D., Oakland;  
Warren E. Griffith, Executive Director, California Society for Crippled Children, San Francisco;  
Lily G. Harris, D.O., Oakland;  
Carl Horn, M.D., Sacramento;  
S. C. Jackson, Supervisor, County of Siskiyou, Yreka;  
Bruce Jessup, M.D., Stanford University Medical School, Stanford;

Horace Klabunde, M.D., San Francisco;  
James C. MacLaggan, M.D., San Diego;  
Russell Mapes, M.D., Beverly Hills;  
Louis Martin, M.D., Los Angeles;  
James J. McGoldrick, Loma Vista Pharmacy, Oakland;  
Roy A. Ouer, M.D., San Diego;  
Mrs. Marvin Owen, North Hollywood;  
Arthur Parmelee, Jr., M.D., University of California Medical School, Los Angeles;  
Abraham B. Sirbu, M.D., San Francisco;  
J. E. Smits, Administrator, Children's Hospital Society of Los Angeles, Los Angeles;  
Francis Sooy, M.D., San Francisco;  
Dwight H. Trowbridge, M.D., Fresno;  
W. Elwyn Turner, M.D., Health Officer, Santa Clara County, San Jose;  
Omer W. Wheeler, M.D., Riverside.

#### Dental Health

Benjamin F. Loveall, D.D.S., San Luis Obispo;  
R. W. McNulty, D.D.S., Dean, School of Dentistry, University of Southern California, Los Angeles;  
Edwin J. Ropes, D.D.S., California State Dental Association, Woodlake;  
Elbert H. Smith, D.D.S., Fresno;  
Ellis D. Sox, M.D., M.P.H., Health Officer, San Francisco City and County, San Francisco.

#### Fisheries (Technical)

Herbert C. Davis, Assistant Executive Director, California Fish Cannery Association, Terminal Island;  
Jack Corby, California Marine Curing and Packing Company, Terminal Island;  
Dr. Sven Lassen, Chairman, Van Camp Sea Food Company, Terminal Island;  
Raymond P. Lewis, California Packing Corporation, San Francisco;  
Thomas N. Miller, Washington Packing Corporation, San Francisco;  
Joseph Olivieri, Santa Cruz Canning Company, Moss Landing;  
Robert K. Pedersen, Star Kist Foods Company, Terminal Island;  
T. D. Sanford, F. E. Booth Company, Inc., San Francisco;  
C. T. Townsend, National Cannery Association, Berkeley.

#### Laboratory Animals, Use and Care of

Gerson Biskind, M.D., Ph.D., San Francisco;  
Morris Bunow, Oakland;  
Bennett J. Cohen, D.V.M., University of California, Los Angeles;  
Joel F. Gustafson, Ph.D., Associate Professor of Biological Science, Division of Natural Sciences, San Francisco State College, San Francisco.

#### Local Projects

Robert H. Alway, M.D., Acting Dean, School of Medicine, Stanford University Hospital, San Francisco;  
Herbert Bauer, M.D., Yolo County Health Officer, Woodland;  
Henrik L. Blum, M.D., Contra Costa County Health Officer, Martinez;

Albert G. Feldman, Director, Health Division, Welfare Planning Council, Los Angeles Region;  
 L. S. Goerke, M.D., Associate Dean, School of Public Health, University of California at Los Angeles;  
 Charles A. Preuss, M.D., Santa Barbara;  
 R. A. Stallones, M.D., University of California, School of Public Health, Berkeley;  
 Everett M. Stone, M.D., Health Officer, Riverside County, Riverside;  
 Malcolm S. M. Watts, M.D., Assistant Dean, School of Medicine, University of California Medical Center, San Francisco.

#### Maternal and Child Health

John M. Adams, M.D., Professor and Chairman, Department of Pediatrics, University of California, School of Medicine, University of California Medical Center, Los Angeles;  
 Jay Akin, Superintendent, Merced County Hospital, Merced;  
 Mrs. Rollin Brown, Los Angeles;  
 Charles Cutler, M.D., Sacramento;  
 Miss Alice Denhard, Assistant Clinical Professor of Obstetric Nursing, Stanford University School of Nursing, San Francisco;  
 Wayne Dooley, D.O., Los Angeles;  
 A. J. Franzi, M.D., San Francisco;  
 Donald C. Harrington, M.D., Stockton;  
 I. D. Litwack, M.D., Health Officer, City of Long Beach, Long Beach;  
 Ernest W. Page, M.D., Chairman, Department of Obstetrics and Gynecology, University of California Medical School, San Francisco;  
 Sidney Rosin, M.D., Los Angeles;  
 Robert C. Smithwick, D.D.S., Sunnyvale;  
 Mrs. J. Frank Snowden, President, California Congress of Parents and Teachers, Alhambra.

#### Pet Bird

Bruce Barnard, President, Pacific Budgie Association, Sacramento;  
 George Barry, Oakland;  
 Nicholas Becker, Cupertino;  
 Harold Burgner, Oakland;  
 W. D. Martin, Stockton;  
 John Papin, Long Beach;  
 Emerson Pinney, Santa Ana;  
 C. M. Wagner, Santa Ana;  
 Gene Wheeler, Lynwood.

#### Regional Rabies

##### REGION I

J. B. Askew, M.D., Health Officer, San Diego County Health Department, San Diego;  
 Mrs. Margaret Bliss, Manhattan Beach;  
 George M. Crosier, Los Angeles;  
 Supervisor John Anson Ford, Chairman, Los Angeles County Board of Supervisors, Los Angeles;  
 Chester A. Maeda, D.V.M., San Bernardino;  
 Leonard Scott, Pomona;  
 Mrs. Evelyn Waer, Roylyn Kennels, Garden Grove;  
 Hon. Norris Poulson, Mayor, City of Los Angeles.

##### REGION II

Harold Appleford, Delano;  
 Robert A. Beck, D.V.M., Modesto;  
 Jeanne Blumhagen, M.D., Health Officer, Madera County Health Department, Madera;

W. B. Camp, Jr., Bakersfield;  
 Hon. C. Cal Evans, Mayor, City of Fresno;  
 Supervisor Norman E. Foley, Chairman, Fresno County Board of Supervisors, Fresno;  
 David L. Green, Jr., M.D., Stockton;  
 G. L. Rambo, Fresno;  
 Otis Rosasco, Jamestown.

##### REGION III

Hon. Floyd O. Bohnett, Mayor, City of Santa Barbara;  
 Robert Bowen, Watsonville;  
 Russell S. Ferguson, M.D., Santa Cruz County Health Officer, Santa Cruz;  
 Eugene A. Johnson, D.V.M., Santa Cruz;  
 E. Nelson Moore, M.D., Hollister;  
 Derek Rayne, Carmel;  
 Supervisor William J. Redding, Chairman, Monterey County Board of Supervisors, Salinas;  
 Fred Righetti, San Luis Obispo;  
 Garrett Van Horne, Secretary, Sherman P. Stow Company, Goleta.

##### REGION IV

Carolyn B. Albrecht, M.D., Health Officer, Marin County Health Department, San Rafael;  
 Miss Ruth Appell, San Francisco Chronicle, San Francisco;  
 Joseph M. Arburua, D.V.M., San Francisco;  
 John Baumgartner, Jr., San Martin;  
 Hon. George J. Christopher, Mayor, City of San Francisco;  
 Gerald R. Dalmadge, San Francisco;  
 James Fulmor, Dixon;  
 Supervisor Leland W. Sweeney, Chairman, Alameda County Board of Supervisors, Oakland.

##### REGION V

Patrick Allanson, M.D., Ukiah;  
 Robert L. Chandler, D.V.M., Ukiah;  
 Ken Layman, Smith River;  
 Supervisor Elwyn L. Lindley, Chairman, Humboldt County Board of Supervisors, Eureka;  
 Lester S. McLean, M.D., Health Officer, Humboldt County, Eureka;  
 Harold Prior, Eureka;  
 Charles Runyon, Talmadge;  
 Andrew Scheubeck, Covelo;  
 Hon. Oscar W. Swanlund, Mayor, City of Eureka.

##### REGION VI

Lloyd Avilla, Red Bluff;  
 Hon. Clarence L. Azevedo, Mayor, City of Sacramento;  
 Supervisor Frank R. Elmer, Chairman, Sacramento County Board of Supervisors, Sacramento;  
 R. W. Enderlin, Alturas;  
 Robert N. Erickson, D.V.M., Chico;  
 W. S. Lawrence, M.D., Gridley;  
 Leon M. Swift, M.D., Health Officer, Sutter-Yuba County, Marysville;  
 Ralph Taylor, Colfax;  
 Gordon Van Vleck, Sloughhouse.

#### Sanitation and Sanitarians' Standards

Dean A. Anderson, Professor of Microbiology, Los Angeles State College of Applied Arts and Sciences, Los Angeles;  
 Garold L. Faber, M.D., Health Officer, Fresno County, Fresno;

James D. Gates, Sanitarian, San Luis Obispo County Health Department, San Luis Obispo;  
 James T. Harrison, M.D., Health Officer, Sonoma County, Santa Rosa;  
 C. A. McCallum, Professor of Biological Sciences, San Jose State College, San Jose;  
 Stanley Martin, Director, Bureau of Sanitation, Los Angeles County Health Department, Los Angeles;  
 Howard J. Toussaint, Director of Sanitation, Butte County, Chico;  
 Forrest R. Walker, Jr., Sanitarian, La Puente.

#### Sanitary Engineering

J. B. Askew, M.D., Health Officer, San Diego County, San Diego;  
 E. S. Bodine, Kentfield;  
 L. M. B. Boelter, Dean of Engineering, University of California at Los Angeles, Los Angeles;  
 Edward A. Fairbairn, City Engineer, City of Sacramento;  
 Hubert Ferry, Vice President, Union Oil Company, Fullerton;  
 Roy O. Gilbert, M.D., Health Officer, Los Angeles County, Los Angeles;  
 C. Prugh Harnish, President, Southern California Water Co., Los Angeles;  
 John A. Lambie, L. A. County Engineer, Los Angeles;  
 Robert C. Merz, Associate Professor of Civil Engineering, University of Southern California, Los Angeles;  
 William R. Seeger, General Manager, Marin Municipal Water District, San Rafael.

#### Training

Rodney Beard, M.D., Professor of Public Health and Preventive Medicine, Stanford Medical School, San Francisco;  
 Dwight M. Bissell, M.D., Health Officer, City of San Jose, San Jose;  
 Neely D. Gardner, Acting State Training Officer, Training Division, State Personnel Board, Sacramento;  
 William Griffiths, Ph.D., Associate Professor of Public Health, University of California, Berkeley;  
 Mrs. Lulu K. Hassenplug, Dean, School of Nursing, University of California at Los Angeles;  
 Alvin Leonard, M.D., Health Officer, City of Berkeley, Berkeley;  
 Mrs. Dalrie S. Lichtenstiger, Executive Secretary, California Tuberculosis and Health Association, San Francisco;  
 John Phillips, City Manager, Berkeley;  
 William M. Siegel, County Supervisors Association of California, Sacramento;  
 Walter J. Tait, Senior Training Specialist, Standard Oil Company of California, San Francisco.

#### Vector Control

Carolyn Albrecht, M.D., Health Officer, Marin County, San Rafael;  
 J. B. Askew, M.D., Health Officer, San Diego County, San Diego;  
 Stanley B. Freeborn, Ph.D., Provost, College of Agriculture, University of California, Davis;  
 C. Donald Grant, Manager, San Mateo County Mosquito Abatement District, Burlingame;



Harold F. Gray, Engineer, Oroville;  
 Jack H. Kimball, Manager, Orange County Mosquito Abatement District, Santa Ana;  
 Stanley F. Martin, Director of Sanitation, Los Angeles County Health Department, Los Angeles;  
 John J. McElroy, Program Leader, Special Projects, Agricultural Extension Service, University of California, Berkeley;  
 Frank M. Prince, Chief, San Francisco Field Station, U. S. Public Health Service, San Francisco;  
 William C. Reeves, Ph.D., Professor of Epidemiology, School of Public Health, University of California, Berkeley.

The following consultants to the State Health Department have been appointed for 1959:

#### CONSULTANTS

##### Accident Prevention

Gilbert Rhodes, Castro Valley.

##### Adult Health

Rodney R. Beard, M.D., Professor of Public Health and Preventive Medicine, Stanford School of Medicine, San Francisco;  
 Jean S. Felton, M.D., School of Public Health, University of California at Los Angeles;

Francis R. Holden, Ph.D., Palo Alto;  
 Rutherford T. Johnstone, M.D., Los Angeles.

##### Alcoholic Rehabilitation

I. D. Litwack, M.D., Health Officer, City of Long Beach;  
 Leonard Goldberg, M.D., Karolinska Institute, Stockholm, Sweden.

##### Bacteriology

Chas. M. Carpenter, M.D., Professor of Infectious Diseases, University of California School of Medicine, Los Angeles.

##### Cardiology

Harold Rosenblum, M.D., San Francisco;  
 Sidney S. Sobin, M.D., Los Angeles.

##### Cardiac Surgery

Frank Gerbode, M.D., Stanford University Hospital, San Francisco;  
 William P. Longmire, M.D., Professor of Medicine, University of California at Los Angeles, Los Angeles.

##### Cerebral Palsy

Malvern Dorinson, M.D., San Francisco;  
 Margaret Jones, M.D., Los Angeles;  
 Joseph Maschmeyer, M.D., Los Angeles.

##### Epidemiology

John M. Chapman, M.D., School of Public Health, University of California at Los Angeles, Los Angeles;  
 William C. Reeves, Ph.D., Professor of Epidemiology, School of Public Health, University of California, Berkeley.

##### Food and Drug Chemistry

A. F. Glaive, Berkeley.

##### General Consultants

Wilton L. Halverson, M.D., Glendale;  
 Karl F. Meyer, M.D., George Williams Hooper Foundation, University of California Medical School, San Francisco.

### Reported Cases of Selected Notifiable Diseases California, Month of January, 1959

Disease <sup>1</sup>	Cases reported this month			Total cases reported to date		
	1959	1958	1957	1959	1958	1957
<b>Series A</b>						
Amebiasis	29	180	100	29	180	100
Coccidioidomycosis	30	17	18	30	17	18
Measles	2,652	1,653	5,323	2,652	1,653	5,323
Meningococcal infections	42	17	21	42	17	21
Mumps	1,019	1,883	2,158	1,019	1,883	2,158
Pertussis	188	257	145	188	257	145
Rheumatic fever	13	13	14	13	13	14
Salmonellosis	70	73	59	70	73	59
Shigellosis	80	153	72	80	153	72
Streptococcal infections, respiratory	1,772	1,098	1,072	1,772	1,098	1,072
Trachoma	--	1	--	--	1	--
<b>Series B</b>						
Chancroid	8	2	11	8	2	11
Conjunctivitis, acute newborn	1	3	--	1	3	--
Gonococcal infections	1,489	1,996	1,593	1,489	1,996	1,593
Granuloma inguinale	--	--	1	--	--	1
Lymphogranuloma venereum	3	4	5	3	4	5
Syphilis, total	476 <sup>a</sup>	612	512	476 <sup>b</sup>	612	512
Primary and secondary	72	43	28	72	43	28
<b>Series C</b>						
Anthrax	--	--	--	--	--	--
Brucellosis	--	5	--	--	5	--
Diarrhea of the newborn	7	3	8	7	3	8
Diphtheria	1	1	3	1	1	3
Encephalitis	27	34	26	27	34	26
Food poisoning (exclude botulism)	66	170	54	66	170	54
Hepatitis, infectious	212	189	206	212	189	206
Hepatitis, serum	7	14	9	7	14	9
Leprosy	1	--	3	1	--	3
Leptospirosis	--	1	--	--	1	--
Malaria	4	1	2	4	1	2
Meningitis, viral or aseptic	36	na	na	36	na	na
Poliomyelitis, total	11	17	46	11	17	46
Paralytic	10	9	28	10	9	28
Nonparalytic	1	8	18	1	8	18
Psittacosis	1	3	--	1	3	--
Q fever	1	--	--	1	--	--
Rabies, animal	5	13	4	5	13	4
Rabies, human	--	--	--	--	--	--
Rocky mountain spotted fever	--	--	--	--	--	--
Tetanus	3	3	3	3	3	3
Trichinosis	--	--	--	--	--	--
Tularemia	--	--	--	--	--	--
Typhoid fever	6	4	6	6	4	6
Typhus fever (endemic)	--	--	1	--	--	1
Other <sup>2</sup>	--	--	--	--	--	--
<b>Series D</b>						
Epilepsy	344	263	355	344	263	355
Tuberculosis <sup>3</sup>	--	--	--	427	624	573

<sup>1</sup> Diseases are grouped in Series A, B, C and D to simplify processing in the local health departments. The details of this classification are given in the "Handbook of Morbidity Reporting Procedures and Epidemiologic Follow-up for Local Health Departments—1958 Revision."

<sup>2</sup> These spaces will be used for any of the following rare diseases if reported: botulism, cholera, dengue, plague, relapsing fever, smallpox, typhus epidemic, yellow fever.

<sup>3</sup> Excludes 91 cases found positive by special serologic survey (Mexican National farm workers at Border Reception Center, El Centro).

<sup>4</sup> Excludes 91 cases found positive by special serologic survey (Mexican National farm workers at Border Reception Center, El Centro).

<sup>5</sup> Tuberculosis cases are corrected to exclude out-of-state residents and changes in diagnosis. State of California, Department of Public Health.

#### Hanson's Disease

NORTHERN CALIFORNIA

Paul Fasal, M.D., San Rafael.

SOUTHERN CALIFORNIA

Maximilian E. Obermayer, M.D., Los Angeles.

#### Health Education

George Foster, Ph.D., Professor of Anthropology, Department of Anthropology, University of California, Berkeley;

Andie L. Knutson, Ph.D., Russell Sage Professor, School of Public Health, University of California, Berkeley;

Dorothy B. Nyswander, Ph.D., Berkeley;  
J. Cecil Parker, Ed.D., Professor of Education, University of California, Berkeley;  
Beryl J. Roberts, Ph.D., Associate Professor of Health Education, School of Public Health, University of California, Berkeley.

#### Hearing and Speech

Victor Goodhill, M.D., Los Angeles;  
Hayes Newby, Ph.D., San Francisco Hearing and Speech Center, San Francisco.

#### Hematology

David Singman, M.D., Alta Bates Hospital, Berkeley.

#### Hospital Administration

Orville N. Booth, Administrator, St. Francis Memorial Hospital, San Francisco;  
Howard B. Hatfield, Administrator, Long Beach Community Hospital, Long Beach;  
C. V. Thompson, M.D., Chief of Staff, Lodi Memorial Hospital, Lodi.

#### Mental Health

Kent Zimmerman, M.D., Children's Hospital of the East Bay, Oakland.

#### Microbiology

Harrison M. Kurtz, Ph.D., Department of Bacteriology, University of Southern California, Los Angeles.

#### Nutrition

Agnes Fay Morgan, Ph.D., Professor Emerita of Nutrition, Department of Home Economics, University of California, Berkeley;  
Robert E. Shank, M.D., Professor of Preventive Medicine and Public Health, Washington University School of Medicine, St. Louis.

#### Parasitology

Quentin M. Geiman, Ph.D., Professor of Preventive Medicine, Tropical Public Health, Stanford School of Medicine, San Francisco;  
Herbert G. Johnstone, Ph.D., University of California, School of Medicine, San Francisco;

Marietta Voge, Ph.D., Assistant Professor of Infectious Diseases, University of California Medical Center, Los Angeles.

#### Psychiatry

Norman Reider, M.D., Chief, Psychiatric Clinic, Mt. Zion Hospital, San Francisco;  
Charles W. Tidd, M.D., Department of Psychiatry, Medical School, University of California at Los Angeles.

#### Rehabilitation

Andrew Marrin, Chief, Bureau of Vocational Rehabilitation, Division of Special Schools and Services, Department of Education, Sacramento.

#### School Health

Alvin R. Leonard, M.D., Health Officer, Berkeley.

#### Statistics

William R. Gaffey, M.D., School of Public Health, University of California, Berkeley.

#### Toxicology

Robert H. Dreishach, Ph.D., M.D., Professor of Pharmacology, Stanford University School of Medicine, San Francisco;  
Charles Hine, M.D., Ph.D., University of California Medical School, San Francisco.

#### Tuberculosis

Emil Bogen, M.D., Olive View;  
H. Corwin Hinshaw, M.D., San Francisco.

#### Unclaimed Dead, Curators of the

##### NORTHERN CALIFORNIA

J. B. deC. M. Saunders, M.D., Dean, School of Medicine, University of California Medical Center, San Francisco;

##### SOUTHERN CALIFORNIA

Paul R. Patek, Ph.D., Department of Anatomy, University of Southern California School of Medicine, Los Angeles.

#### Veterinary Medicine

Donald Jasper, D.V.M., Dean, School of Veterinary Medicine, University of California, Davis.

#### Virus Laboratory

Irving J. Gordon, M.D., Professor and Chairman of the Department of Microbiology, University of Southern California, Los Angeles;  
A. F. Rasmussen, M.D., Professor of Virology, Medical School, University of California at Los Angeles.

EDMUND G. BROWN, Governor  
MALCOLM H. MERRILL, M.D., M.P.H.  
State Director of Public Health

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